### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002825 Address: 333 Burma Road **Date Inspected:** 01-Jun-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 2300 **Project Name:** SAS Superstructure **OSM Departure Time:** 730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Jiang Jian Fei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower

## **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

## New Tower Bay 1

The Caltrans QA Inspector randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. SSD1-SA40A/E-18B. The welding operator was Yun Chuan jin (I. D. No. 0503060). The welding was in the flat groove (1G) position using Welding Procedure Specification (WPS) No. WPS-B-T-2221-B-U3c-S. Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691) was present during this welding as was ABF QA Inspector, Kong Yian hui. The QA Inspector verified the electrode as JW-3 (EM12K) and the diameter of the electrode as 4.0 mm. The minimum preheat and maximum interpass temperatures, voltage, amperage and travel speed were all verified as being within the parameters of the WPS.

#### New Tower Bay 2

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of the root pass and second pass on Weld No. ESD1-SA237 A/F-23A. The welding operator was Cao Xiao Hua (I. D. No. 056975). The welding was in the flat groove (1G) position using Welding Procedure Specification (WPS) No. WPS-B-T-2221-B-U3c-S-1. Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691) was present during this welding as was ABF QA Inspector, Yang Yi feng. The QA Inspector verified the qualifications of the

# WELDING INSPECTION REPORT

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welding operator, the electrode as JW-3 (EM12K) and the diameter of the electrode as 4.0 mm. The minimum preheat and maximum interpass temperatures, voltage, amperage and travel speed were all verified as being within the parameters of the WPS. Later in the shift, the QA Inspector observed the above personnel, ie. welding operator, CWI and ABF Inspector, using machine SAW to weld fill passes on Weld No. ESD1-SA107E/J-22B. WPS-B-T-2221-B-U3c-S was being used.

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of the root pass and second pass on Weld No. ESD1-SA216A/K-14A. The welding operator was Sun Bing fa (I. D. No. 062046). The welding was in the flat groove (1G) position using Welding Procedure Specification (WPS) No. WPS-B-T-2221-B-U3c-S-1. Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691) was present during this welding as was ABF QA Inspector, Yang Yi feng. The QA Inspector verified the qualifications of the welding operator, the electrode as JW-3 (EM12K) and the diameter of the electrode as 4.0 mm. The minimum preheat and maximum interpass temperatures, voltage, amperage and travel speed were all verified as being within the parameters of the WPS.

All above observations appeared to meet the requirements of the job specifications.





### **Summary of Conversations:**

As identified within the contents of this report.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Jobes, Kenneth	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer